C18

LEMBAR
HASIL PENILAIAN SEJAWAT SEBIDANG ATAU *PEER REVIEW*
KARYA ILMIAH : PROSIDING ILMIAH

Judul Karya Ilmiah/Artikel : Physical Characteristics of Phycocyanin From Spirulina Microcapsules Using Different Coating Materials With Freeze Drying Method
Jumlah Penulis : 3 (tiga)
Status Pengusul : Penulis pertama/ ~~penulis ke 2./penulis korespondensi **~~
Penulis Karya Ilmiah : **Eko Nurcahya Dewi**, Lukita Purnamayati, Retno Ayu Kurniasih
Identitas Karya Ilmiah : a. Nama Prosiding : IOP Conf. Series : Earth and Environmental Science.
b. No. ISBN : -
c. Tahun Terbit, Tempat Pelaksanaan : 2017, Semarang - Indonesia
d. Penerbit : IOP
e. Alamat web prosiding :
http://iopscience.iop.org/article/10.1088/1755-1315/55/1/012060
Alamt web artikel :
http://iopscience.iop.org/article/10.1088/1755-1315/55/1/012060/pdf
g. Terindeks di (jika ada) : Scopus

Kategori Publikasi Jurnal Ilmiah (beri ✓pada kategori yang tepat) : [√] *Prosiding* Forum Ilmiah Internasional ..... [ ] *Prosiding* Forum Ilmiah Nasional.....

Hasil Penilaian *Peer Review* :

Komponen Yang Dinilai	Nilai Maksimal *Prosiding*		Nilai Akhir Yang Diperoleh
	Internasional [30]	Nasional [10]	
a. Kelengkapan unsur isi paper (10%)	3		3
b. Ruang lingkup dan kedalaman pembahasan (30%)	9		5.7
c. Kecukupan dan kemutahiran data/informasi dan metodologi (30%)	9		8.7
d. Kelengkapan unsur dan kualitas terbitan/prosiding (30%)	9		9
Total = (100%)	**30**		26.4
Nilai Pengusui =		60% =	15.84

Catatan Penilaian Paper oleh Reviewer : sesuai kompetensi penyusul, terminasi 10%. Mencari material pembungkus pigmen biru yg dihasilkan mikroalgae. Pigmen tsb mayor antioksidan & produk alamiah lainnya yg penyalurannya non-artifisial. Kandidat terbaik adlh alginat & kappa-karaginan utk mikroenkapsulasi fikosianin tsb. Sumber dana DIKTI 2016.

Σ pustaka : 36

pustakhir = $\frac{35}{36} = 97.2$

(72006) = $\frac{29}{30} \times 9 = 8.7$

Diskusi = $\frac{15}{36} = 41.7$

= $\frac{19}{30} \times 9 = 5.7$.

Semarang, 22/11/2018
Reviewer 1

Prof. Norma Afiati, M.Sc., Ph.D
NIP. 195511101982032001
Unit kerja : FPIK UNDIP

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Komponen Yang Dinilai	Nilai Maksimal *Prosiding*		Nilai Akhir Yang Diperoleh
	Internasional [30]	Nasional [10]	
a. Kelengkapan unsur isi paper (10%)	3		3.0
b. Ruang lingkup dan kedalaman pembahasan (30%)	9		7.8
c. Kecukupan dan kemutahiran data/informasi dan metodologi (30%)	9		9.0
d. Kelengkapan unsur dan kualitas terbitan/prosiding (30%)	9		8.9
Total = (100%)	**30**		28.2 x 60
Nilai Pengusul =			17.22

Catatan Penilaian Paper oleh Reviewer :
- Sesuai dengan bidang keilmuan. prosiding internasional terindex
- Kelengkapan isi paper baik
- Kualitas and unsur terbitan bagus.
- Substansi publikasi komprehensif dan aplikatif teknologi
- Kedalaman pembahasan = 18/36 = 50% = 26/30 x 9 = 7.8
- Kemutahiran informasi = 35/36 = 97.2% = 30/30 x 9 = 9.
- Similarity 10% dan student paper 5%

Semarang, 24 NOV 2017
Reviewer 2

Prof. Dr. Ir. Slamet Budi Prayitno, M.Sc
NIP. 195506281981031005
Unit kerja : FPIK Undip

IOP Conference Series: Earth and Environmental Science
Volume 55, Issue 1, 1 March 2017, Article number 012060
2nd International Conference on Tropical and Coastal Region Eco Development 2016, ICTCRED 2016; Bali; Indonesia; 25 October 2016 through 27 October 2016; Code 126824

Physical characteristics of phycocyanin from spirulina microcapsules using different coating materials with freeze drying method (Conference Paper) (Open Access)

Dewi, E.N., Purnamayati, L., Kurniasih, R.A.

Faculty of Fisheries and Marine Science, Diponegoro University, Jl. Prof. Soedarto, SH, Semarang, 50275, Indonesia

Abstract

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The aim of this study was to compare the physical characteristics of phycocyanin microcapsules (F) from Spirulina sp. with different coating materials, such as κ-Carrageenan (C) and Na-alginate (A) in combination with maltodextrin (M) by freeze drying method. Microcapsules were prepared in three variations of coating materials i.e. maltodextrin (FM); maltodextrin and Na-alginate (FMA); and maltodextrin and carrageenan (FMC) with concentration of each materials were 10%; 9%:1.0%; and 9%:1% (w/w), respectively. The results showed that FMA with Na-alginate 1.0% produced the highest bulk density and total soluble solid, there were 0,334 g/ml and 9,067%, respectively. Color analysis by chromameter showed that FMC produced the bluest color compared to other samples. The glass transition temperature (Tg) investigated with Differential scanning calorimeter (DSC) in all of the samples. © Published under licence by IOP Publishing Ltd.

SciVal Topic Prominence

Topic: Spray drying | Drug Compounding | wall materials

Prominence percentile: 99.438

Reaxys Database Information

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Author keywords

Carrageenan | Maltodextrin | Na-alginate | Phycocyanin | Physical Characteristics

Indexed keywords

Engineering controlled terms: Alginate | Coastal zones | Coatings | Differential scanning calorimetry | Glass transition | Low temperature drying | Microstructure | Plating | Sodium

Engineering uncontrolled terms: Carrageenans | Maltodextrins | Na-alginate | Phycocyanin | Physical characteristics

Engineering main heading: Polysaccharides

Metrics

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3 Citations in Scopus
90th percentile

5.56 Field-Weighted Citation Impact

PlumX Metrics
Usage, Captures, Mentions, Social Media and Citations beyond Scopus.

Cited by 3 documents

The Application of Microencapsulated Phycocyanin as a Blue Natural Colorant to the Quality of Jelly Candy
Dewi, E.N. , Kurniasih, R.A. , Purnamayati, L.
(2018) IOP Conference Series: Earth and Environmental Science

Phycocyanin stability in microcapsules processed by spray drying method using different inlet temperature
Purnamayati, L. , Dewi, E.N. , Kurniasih, R.A.
(2018) IOP Conference Series: Earth and Environmental Science

Effect of Different Coating Materials on the Characteristics of Chlorophyll Microcapsules from Caulerpa racemosa
Kurniasih, R.A. , Dewi, E.N. , Purnamayati, L.
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